



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,961	11/27/2001	Kei Suda	15108	1684
23389	7590	12/28/2005	EXAMINER PHAM, TUAN	
SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530			ART UNIT 2643	PAPER NUMBER

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/994,961	Applicant(s) SUDA, KEI	
	Examiner TUAN A. PHAM	Art Unit 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 6-10 is/are allowed.
- 6) ☒ Claim(s) 11-15, 17-24 and 28-32 is/are rejected.
- 7) ☒ Claim(s) 16 and 25-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. **Claims 18-20, and 28-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Kohlschmidt (U.S. Patent No.: 6,029,061).**

Regarding claim 18, Kohlschmidt teaches a mobile phone having two main clock system, the main clock system comprising (see figure 1):

a main clock generator which generates a main clock signal (see figure 1, high accuracy clock 101, col.3, ln.1-10);

a main counter which carries out a counting operation of main clock of the main clock signal in response to the main clock signal generated by the main clock generator (see col.6, ln.1-22, quarterbit counter); and

a processor which stops the counting operation of the main counter by stopping the generation of the main clock by the main clock generator before entering a waiting operation and changes a count value of the main counter as if the counting operation of the main counter has been not stopped when going out of the waiting operation (see figure 1, DSP 104, col.4, ln.31-51, col.5, ln.1-21).

Regarding claim 19, Kohlschmidt further teaches the mobile phone wherein the processor comprises: a wait timer which carries out a counting operation of wait clocks of a wait clock signal in response to a wait clock signal for a predetermined time corresponding to a time period during which the generation of the main clock signal is stopped; and a CPU which operates based on the count value of the main counter in response to the main clock signal (see col.3, ln.1-40).

Regarding claim 20, Kohlschmidt further teaches said wait timer is shared by the two main clock systems (see figure1, high clock 101, slow clock 102, CSP is included two counter, col.6, ln.1-22).

Regarding claim 28, Kohlschmidt teaches a mobile phone comprising:

a first clock generator configured to generate a first clock signal (see figure 1, high clock 101);

a second clock generator configured to generate a second clock signal with a frequency lower than said first clock signal (see figure 1, slow clock 102);

a first single counter configured to count said first clock signal (see figure 1, CSP is included the first and second counter, aquarterbit counter and frame counter, col.6, ln.1-22);

a second single counter configured to count said second clock signal and to control said first counter to step and restart the counting operation of said first clock signal in response to said second clock signal (see figure 1, CSP is included the first and second counter, aquarterbit counter and frame counter, col.6, ln.1-22).

Regarding claim 29, Kohlschmidt further teaches said second counter counts said second clock signal for a period during which said first counter does not count said first clock signal (see col.6, ln.1-22).

Regarding claim 30, Kohlschmidt further teaches a processing unit configured to set a new count value, at a time when said first counter restarted, to said first counter based on a counter value of said second counter of said second clock signal and a count value of said first counter at a time when said first counter is stopped (see col.5, ln.1-33, col.6, ln.1-22).

Regarding claim 31, Kohlschmidt further teaches said first clock generator is controlled to stop generation of said first clock signal at a time for the period, and said second counter controls said first clock generator to restart the generation of said first clock signal (see col.5, ln.1-33, col.6, ln.1-22).

Regarding claim 32, Kohlschmidt further teaches said second counter controls said first counter to restart the counting operation of said first clock signal in response to said second clock signal after said first clock generator restarts the generation of said first clock signal (see col.5, ln.1-33, col.6, ln.1-22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 11-15, 17, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohlschmidt (U.S. Patent No.: 6,029,061) in view of Romao (U.S. Patent No.: 6,650,189).**

Regarding claim 11, Kohlschmidt teaches a mobile phone having at least one main clock system, the main clock system comprising (see figure 1):

a main clock generator which generates a main clock signal (see figure 1, high accuracy clock 101, col.3, ln.1-10);

a main counter which carries out a counting operation of main clock of the main clock signal in response to the main clock signal generated by the main clock generator (see col.6, ln.1-22, quarterbit counter); and

a processor which stops the counting operation of the main counter by stopping the generation of the main clock by the main clock generator before entering a waiting

operation and changes a count value of the main counter as if the counting operation of the main counter has been not stopped when going out of the waiting operation (see figure 1, DSP 104, col.4, ln.31-51, col.5, ln.1-21).

It should be noticed that Kohlschmidt fails to teaches the change is based upon a preset value include a ratio of the frequency of the main clock signal to the frequency of the wait clock signal. However, Romao teaches such features (see col.1, ln.32-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporated the teaching of Romao into view of Kohlschmidt in order to improve the power consumption as suggested by Romao at column 1, lines 19-50.

Regarding claim 12, Kohlschmidt further teaches the mobile phone wherein the processor comprises: a wait timer which carries out a counting operation of wait clocks of a wait clock signal in response to a wait clock signal for a predetermined time corresponding to a time period during which the generation of the main clock signal is stopped; and a CPU which operates based on the count value of the main counter in response to the main clock signal (see col.3, ln.1-40).

Regarding claim 13, Kohlschmidt further teaches the mobile phone wherein the wait timer which stops the operations of the main counter and the CPU by stopping the generation of said main clock signal by the main clock generator in response to an instruction from the CPU, and controls the main clock generator to restart the generation of the main clock signal and the CPU to change a count value of the main counter, after the predetermined time elapses (see col.3, ln.1-40).

Regarding claim 14, Kohlschmidt further teaches the mobile phone wherein the CPU changes the count value of the main counter by adding data corresponding to the number of the main clocks while the counting operation of the main counter is stopped, to the count value of the main counter (see col.3, ln.1-40, col.4, ln.31-51).

Regarding claim 15, Kohlschmidt further teaches the mobile phone wherein the CPU calculates the data to be added, based on the wait clocks counted by the wait timer during the predetermined time (see col.3, ln.1-40, col.4, ln.31-51).

Regarding claim 17, Kohlschmidt further teaches the mobile phone wherein the predetermined time is set in the wait timer by the CPU before the wait timer stops the generation of the main clock signal by the main clock generator (see col.3, ln.1-40, col.4, ln.31-51).

Regarding claim 21, Kohlschmidt teaches a method and a mobile phone having at least one main clock system and operating based on a main clock signal of the main clock system, wherein the main clock system comprising (see figure 1):

counting main clocks of the main clock signal using a first counting mean(see col.6, ln.1-22, quarterbit counter); and

stopping generation of the main clock signal for a time period, while counting wait clocks of a wait clock signal using a second counting means (see figure 1, high accuracy clock 101, slow clock 102, CSP 103, DSP 104, col.3, ln.1-40, col.4, ln.31-51, col.5, ln.1-21),

restarting the generation of the main clock signal after the time period (see figure 1, high accuracy clock 101, slow clock 102, CSP 103, DSP 104, col.3, ln.1-40, col.4, ln.31-51, col.5, ln.1-21), and

restarting the counting operation of said main clock of said main clock signal from preset data corresponding to said counted wait clocks of said wait clock signal (see figure 1, high accuracy clock 101, slow clock 102, CSP 103, DSP 104, col.3, ln.1-40, col.4, ln.31-51, col.5, ln.1-21).

It should be noticed that Kohlschmidt fails to teaches the change is based upon a preset value include a ratio of the frequency of the main clock signal to the frequency of the wait clock signal. However, Romao teaches such features (see col.1, ln.32-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporated the teaching of Romao into view of Kohlschmidt in order to improve the power consumption as suggested by Romao at column 1, lines 19-50.

Regarding claim 22, Kohlschmidt further teaches the method and mobile phone wherein the correction control means comprises: counting means for counting the wait clocks of the wait clock signal for the time period during which the generation of the main clock signal is stopped; and calculating means for calculating the main clocks while the generation of the main clock signal is stopped; and setting means for correcting the count value of the main counter based on the calculated main clocks (see col.3, ln.1-40, col.4, ln.31-51, col.5, ln.1-21).

Regarding claim 23, Kohlschmidt further teaches the method and mobile phone wherein a frequency of the main clock signal is larger than a frequency of the wait clock signal (see figure 1, high accuracy clock 101 at 13MHz, slow clock 102 at 32.7KHz).

Regarding claim 24, Kohlschmidt further teaches the method and mobile phone wherein the time period during which the generation of the main clock signal is stopped is predetermined (see col.3, ln.1-40).

Allowable Subject Matter

6. Claims 1-4, and 6-10 are allowed.

7. Claims 16, and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (571) 272-7499 and


Art Unit: 2643

**IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE
CALL Customer Service at (571) 272-2600 FOR THE SUBSTITUTIONS OR COPIES.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2643
December 26, 2005
Examiner

Tuan Pham


DUC NGUYEN
PRIMARY EXAMINER